

I Claim:

1. A flow verification sensor apparatus, for use with a constant volume pump that pumps a liquid product from a container comprising:
 - a) a flow tube having a bore, the flow tube having an upper end and a lower end, the upper end adapted and configured to be in fluid communication with the constant pump and the lower end adapted and configured to be in fluid communication with the liquid product;
 - b) a plummet positioned in the bore of the flow tube;
 - c) a sensor positioned proximate the flow tube and at an upward distance from the lower end;
 - d) the plummet moveable from a first, at rest position to a second position, when the sensor senses the plummet; and
 - e) a timer for measuring a length of time for the plummet to move from the first position to the second position after activation of the pump, the plummet being raised by flow of the liquid product.
2. The apparatus of claim 1, further comprising the flow tube being transparent, wherein the plummet is able to be seen.
3. The apparatus of claim 1, further comprising the plummet being generally cylindrical with an elongate groove.
4. The apparatus of claim 1, further comprising:
 - a) the plummet having a magnet; and
 - b) the sensor is a magnetic reed sensor.
5. The apparatus of claim 1, further comprising an alarm for signaling low flow and no flow of liquid product.

6. A dispensing system for dispensing a liquid product, comprising:
- a) a constant volume pump;
 - b) a flow tube having a bore, the flow tube having an upper end and a lower end, the upper end adapted and configured to be in fluid communication with the constant volume pump and the lower end adapted and configured to be in fluid communication with the liquid product;
 - c) a plummet positioned in the bore of the flow tube;
 - d) a sensor positioned proximate the flow tube and at an upward distance from the lower end;
 - e) a conduit having a first end in fluid communication with the lower end of the flow tube and a second end in fluid communication with the liquid product;
 - f) the plummet moveable from a first, at rest position to a second position, when the sensor senses the plummet; and
 - g) a timer for measuring a length of time for the plummet to move from the first position to the second position after activation of the pump.
7. The system of claim 6, further comprising the flow tube being transparent, wherein the plummet is able to be seen.
8. The system of claim 6, further comprising the plummet being generally cylindrical with an elongate groove.
9. The system of claim 6, further comprising:
- a) the plummet having a magnet; and
 - b) the sensor is a magnetic reed sensor.
10. The system of claim 6, further comprising an alarm for signaling low flow and no flow of liquid product.

11. A method of priming a dispensing system for dispensing a liquid product, comprising:
- a) activating a pump for dispensing the liquid product;
 - b) establishing a maximum priming time;
 - c) positioning a plummet in a bore of a flow tube, through which the liquid product flows;
 - d) positioning a sensor proximate the flow tube to sense the plummet rising in the flow tube due to flow of the liquid product;
 - e) measuring flow time; and
 - f) running the pump until the sensor senses the plummet or until the flow time exceeds the maximum priming time, whichever occurs first.
12. The method of claim 11, further comprising setting on an alarm when the flow time exceeds the maximum priming time.
13. The method of claim 12, further comprising:
- a) establishing the priming time after sensor is sensed;
 - b) resetting the flow timer; and
 - c) running the pump until the flow timer is greater than the priming time after sensor is sensed, where the system is primed from the sensor to the system's application.